The Advanced Tracking and Resource tool for Archive Collections (ATRAC): Metadata Creation

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NCDC Metadata Meeting III

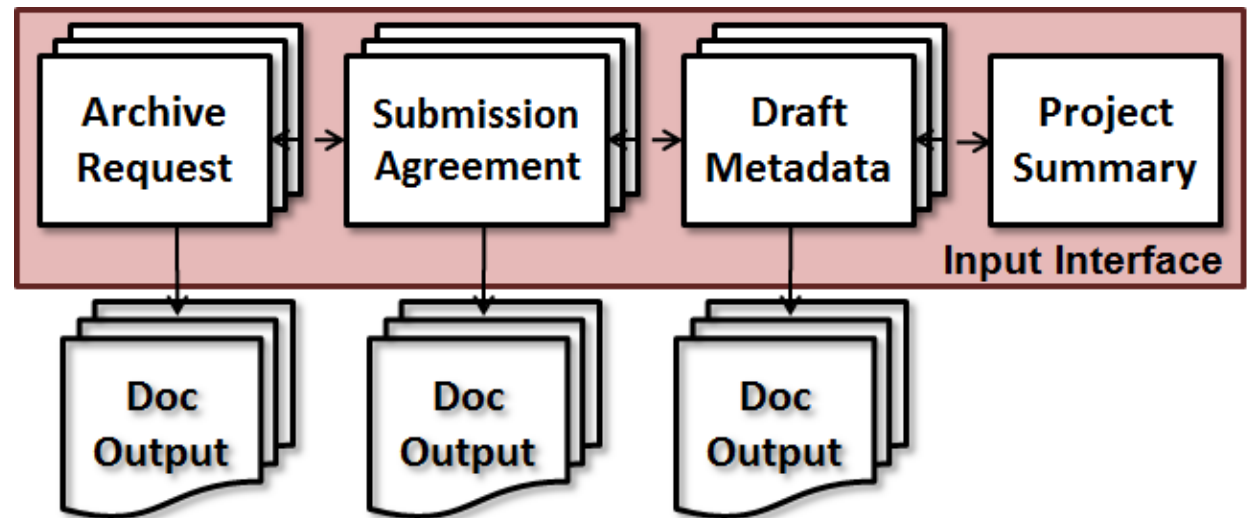Asheville, NC

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Outline

- ATRAC Overview
- Information Flow
- Metadata Form
  - Included Metadata Elements
  - Controlled Vocabularies
  - Metadata Import
  - Metadata Export
- Demo
- Next Steps

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ATRAC Overview

- Web-based tool for managing and tracking data archiving projects at a data center

- Provides an central interface to enter project information and manages it for

  - Project status display
  - Creating archive documentation

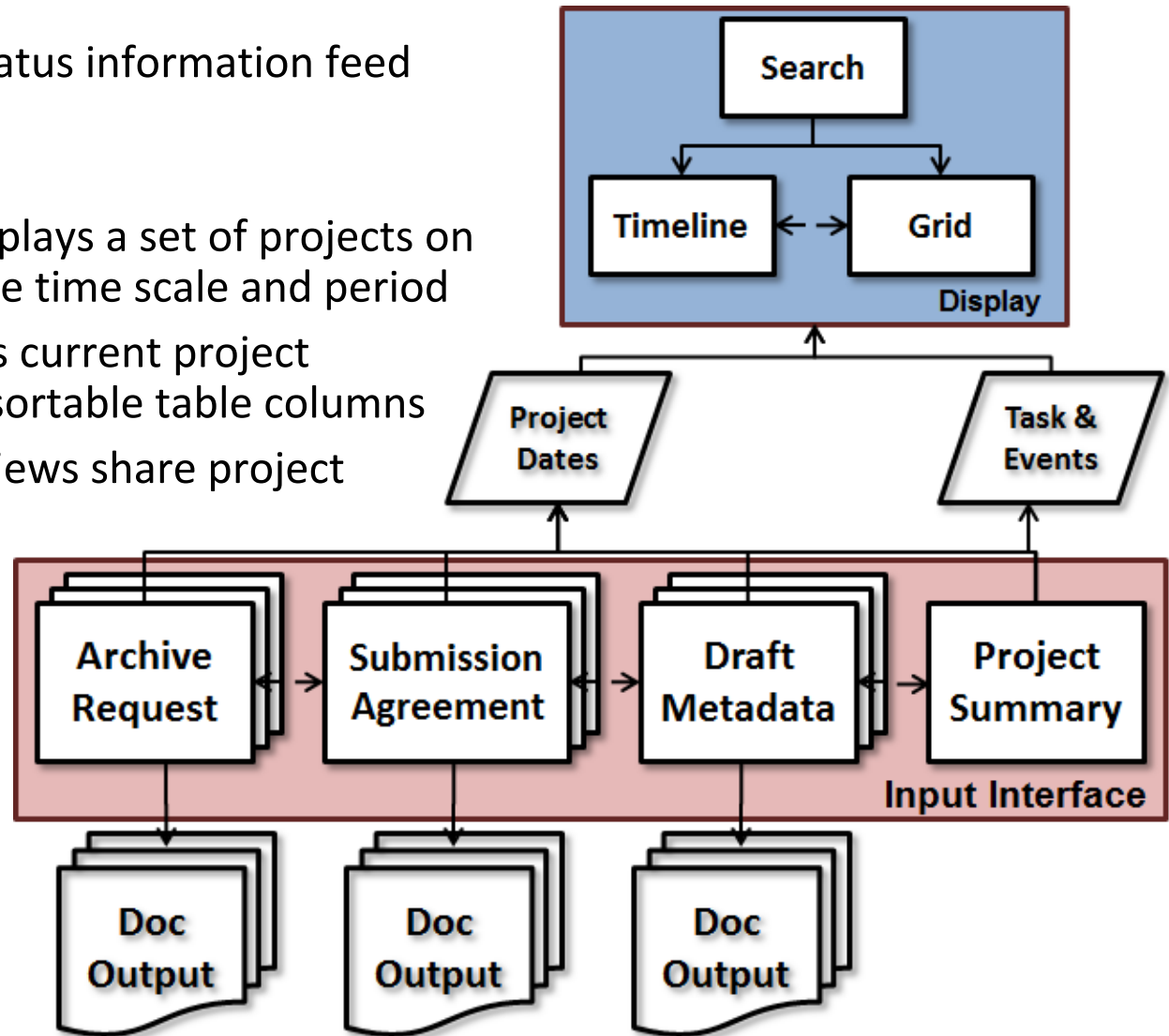- Users include data providers, data center representatives and management

Information Flow

- Forms to populate select archive documents
- Re-uses information components between forms and between projects
- Selection menus, calendar tool, and auto-completion
- Validation checks for submitted forms
- Generates corresponding documents in standard formats (XML and PDF)
- Saved previous form versions

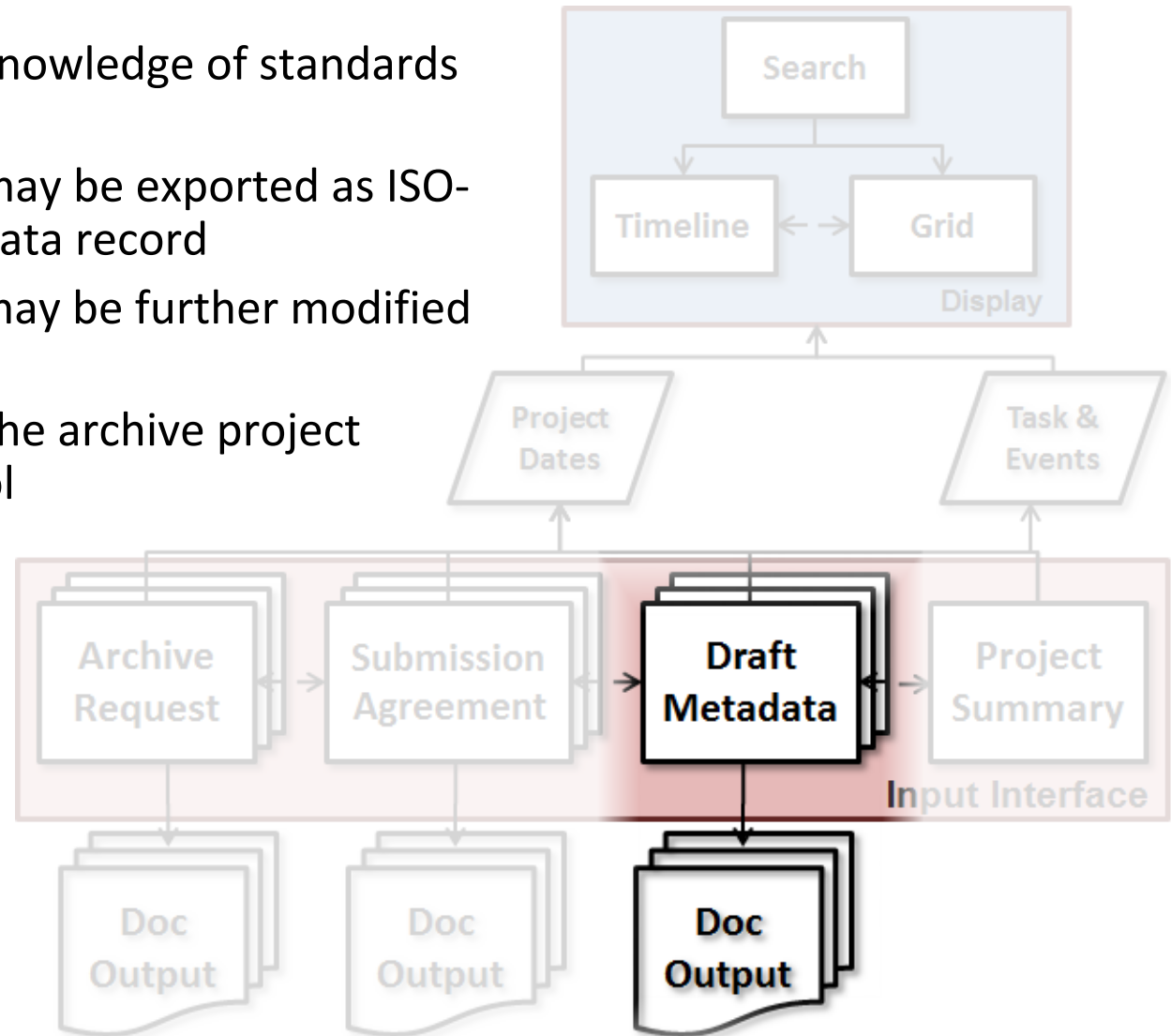
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Information Flow

- Valid dates and status information feed project display

- **Search**

- **Timeline View** displays a set of projects on a user-configurable time scale and period

- **Grid View** displays current project characteristics in sortable table columns

- Two compatible views share project search results

Metadata Form

- Usable without knowledge of standards and conventions

- Validated input may be exported as ISO-compliant metadata record

- Generated files may be further modified outside ATRAC

- Integrated with the archive project management tool

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Included Metadata Elements

Essential

- NCDC Required ~~Minimum~~ Set
- Additional Elements:
    - Browse Graphic
    - Additional Keywords (Place, Stratum, Platform, Instrument, Project, Resolution)
    - Cross References
    - Applied Quality Measures ⎤
    - Processing Description   ⎬ **Quality and Lineage**
    - Processing Documentation
    - Input Dataset Citation ⎦
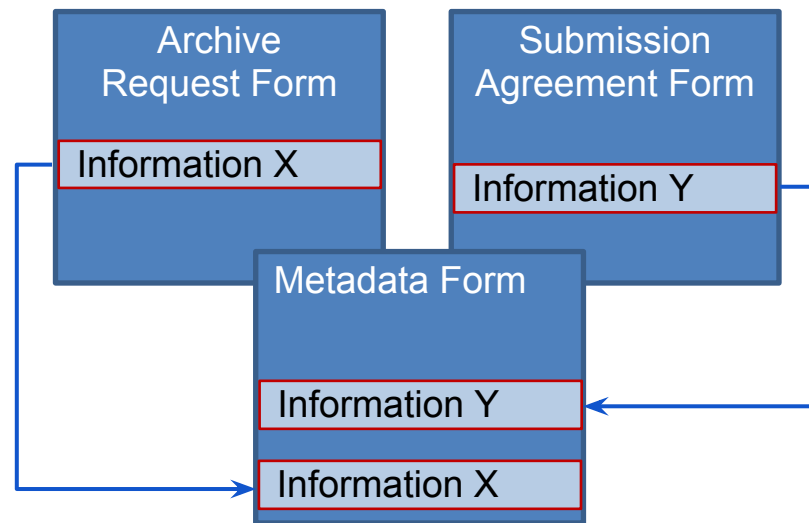
Controlled Vocabularies

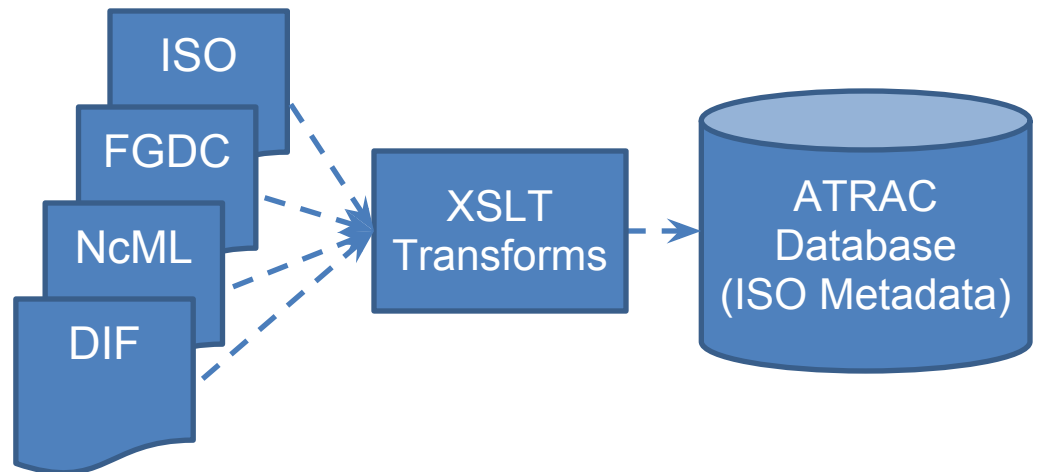| Standard	Use
GCMD Theme Keywords	GCMD keyword web service allowing hierarchical selection of topic, term, and variable.
GCMD Data Center Keywords	Used to populate organization information via auto-complete functionality.
WMO Essential Climate Variables (ECVs)	Used to populate repeating keyword via auto-complete functionality.
Other GCMD Keywords: • Location • Stratum • Project • Instrument • Platform • Resolution	Used to populate repeating keyword collections via auto-complete functionality.
ISO Topic Categories	Used to populate topic categories section of ISO metadata record.
ISO Code Lists	Used to set the valid domain for questions throughout the metadata form, as appropriate.

Metadata Import

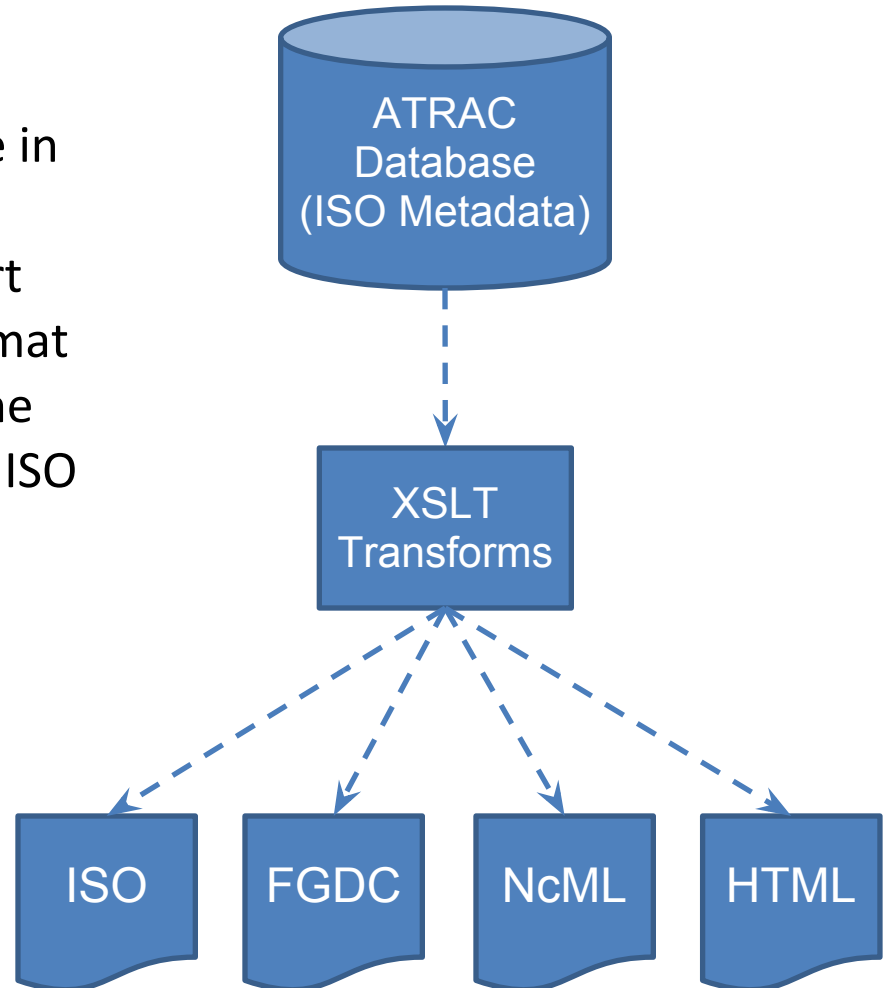**Related ATRAC Forms**

- Imports most recent form information

External XML Files

- Supports ISO, FGDC, NcML, and DIF
- XSLT's translate content to ISO
- Stored in ATRAC database as a new Metadata form revision
- Scheduled for future release

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Metadata Export

- Metadata form information is retrieved from the ATRAC database in ISO format
- XSLT transforms are used to convert the metadata to the requested format
- Translated metadata is served to the user as an XML document in either ISO 19115, FGDC, or NcML format
- Option to view metadata in a more human readable HTML format

ATRAC Database (ISO Metadata)

XSLT Transforms

ISO   FGDC   NcML   HTML

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Demo

http://www.ncdc.noaa.gov/atrac

https://www.ngdc.noaa.gov/docucomp/recordServices

Next Steps

- ATRAC v2.4 (Online)
  - Metadata form
  - Import of metadata from AR and SA
  - Export of metadata in ISO 19115, FGDC, NcML, and HTML
  - Updated Archive Request form
  - Several minor display changes and navigation improvements
- ATRAC v2.5
  - Minor usability improvements
- Future Releases
  - Updated Submission Agreement form
  - Integration with NCDC ingest configuration (SIPGenSys)
  - Management of shared components via Docucomp
  - Improved XSLTs
  - Metadata file import
  - Service Metadata (19119)

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Questions

ATRAC Website:

http://www.ncdc.noaa.gov/atrac

ATRAC Team:

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